

IN THE CLAIMS:

Amend the claims to read as indicated below.

1. (currently amended) A method of displaying an ultrasound image with adaptive persistence, comprising:

obtaining a plurality of component image frames of body tissue or fluids;

determining the extent to which at least one portion of each component image frame varies from one image frame -to another -image frame by assessing the frame-to-frame misregistration of one or more component areas of temporally different image frames;

combining a plurality of the component image frames to provide a composite image frame, the number and/or weighting of component image frames that are combined in at least one area of the composite image frame being a function of the determined extent to which at least one portion of each component image frame varies; and

displaying an image corresponding to the composite image frame.

2. (original) The method of claim 1 wherein the act of determining the extent to which at least one portion of each component image frame varies from image frame-to-image frame comprises determining the extent to which a single portion of each component image frame varies from image frame-to-image frame.

3. (original) The method of claim 2, further comprising manually designating the single portion of each component image frame in which the determination is made of the extent to which the single portion of each component image frame varies.

4. (original) The method of claim 3 wherein the act of manually designating the single portion of each component image frame comprises designating the single portion on the displayed image.

5. (original) The method of claim 1 wherein the act of determining the extent to which at least one portion of each component image frame varies from image frame-to-image frame comprises determining the extent to which each of a plurality of portions of each component image frame varies from image frame-to-image frame.

6. (original) The method of claim 1 wherein the act of combining a plurality of the component image frames to provide a composite image frame comprises weighting the contribution that each of the component image frames makes to the composite image frame so that different component image frames contribute to the composite image frame in differing degrees.

7. (original) The method of claim 6 wherein the act of weighting the contribution that each of the component image frames makes to the composite image frame comprises weighting the contribution that each of the component image frame makes based on the lapse in time since the component image frame was obtained.

8. (original) The method of claim 6 wherein the act of weighting the contribution that each of the component image frames makes to the composite image frame comprises weighting the contribution that each of the component image frames makes based on the number of component image frames combined to provide the composite image frame.

9. (previously presented) The method of claim 1, wherein determining the extent to which at least one portion of each component image frame varies from image frame-to-image frame further comprises:

dividing each component image frame into a plurality of image areas, each of the image areas in a component image frame representing substantially the same portion of the body tissues or fluids that is represented by a corresponding image area of the other component image frames; and

determining the extent to which corresponding image areas of the plurality of component image frames vary from image frame-to-image frame;

and wherein combining a plurality of the component image frames further comprises:

combining the corresponding image areas in each of the plurality of the component image frames to provide respective composite image areas in a composite image frame, the number and/or weighting of image areas that are combined to form each of the composite image areas being a function of the determined extent to which the respective corresponding image areas vary.

10. (original) The method of claim 9 wherein the act of combining the corresponding image areas in each of the plurality of the component image frames to provide respective composite image areas comprises weighting the contribution that each image area in each component image makes to the respective composite image area so that corresponding image areas from different component image frames contribute to the respective composite image area in differing degrees.

11. (original) The method of claim 10 wherein the act of weighting the contribution that each of the image areas in each component image frame makes to the respective composite image area comprises weighting the contribution that each of the image areas in each component image frame makes based on the lapse since the component image frame was obtained.

12. (original) The method of claim 10 wherein the act of weighting the contribution that each of the image areas in each component image frame makes to the respective composite image area comprises weighting the contribution that each of the image areas in each component image frame makes based on the number of component image areas that are combined to form the respective composite image area.